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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,051

03/18/2004

Ronald S. Plantan

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04/21/2006

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EXAMINER

BURCH, MELODY M

ART UNIT

PAPER NUMBER

3683

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/803,051	Applicant(s) PLANTAN, RONALD S.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/26/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the bolts should be deleted in the drawings to avoid the introduction of new matter. The elimination of the bolts will ensure that the caliper illustration is schematic in nature. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3683

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7, 8, 10, 11, 13, 14, 16-18, 20, 21, 23, 24, 26, and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 2655237 to Benson.

Re: claims 1, 2, and 16. Benson shows in figure 1 a brake disc comprising a hub portion 7, a friction portion 19, the friction portion formed as a generally planar ring as shown in figure 4 and a connecting flange portion 13, wherein the connecting flange portion extends from a radially outer region of the hub portion to a radially inner region of the friction portion as shown, the connecting flange portion has a length such that when the hub portion and a wheel rim 10 adapted to be mounted on a hub end of a vehicle axle 5 are located at the hub end of the axle, the friction portion is outboard of the wheel rim as shown, and the friction portion has an outer radius shown at the top of element 19 greater than a greatest inner radius of the wheel rim as shown.

Re: claim 3. Benson shows in figure 1 the brake disc being a one-piece brake disc in the sense that the parts are combined to form one piece as shown.

Re: claims 4, 5, 17, and 18. Benson shows in figure 1 the limitation wherein at least one heat-conducting limiting section is provided on at least one of the connecting flange portion and the friction portion, particularly the connecting flange in the area around the lead line of number 56 as that area includes a section having a reduced thickness.

Art Unit: 3683

Re: claims 7, 8, 20, and 21. Benson shows in figure 1 the limitation wherein at least one ventilation aperture (shown surrounding element 14) is provided in the connecting flange portion.

Re: claims 10, 11, 13, 14, 23, 24, 26, and 27. Benson shows in figure 1 the limitation of wherein a plurality of cooling fins 35 are disposed about (to the right of) an inner radius of the friction portion.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 9, 12, 15, 19, 22, 25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Benson.

Re: claims 6 and 19. Benson describes the invention substantially as set forth above including the limitation of at least one heat conduction limiting section including a section having a reduced thickness, but does not show the limitation wherein the reduced thickness section is ring shaped.

In *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) the court held that the configuration of a claimed object was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration is significant.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the connecting flange portion or the friction portion of Benson to have included a ring-shaped reduced thickness section in order to provide a means of reducing the amount of material used to make a portion of the brake disc.

Re: claims 9 and 22. Benson shows in figure 1 the limitation wherein at least one ventilation aperture (shown in the area of the portion of element 7 surrounding element 14) is provided in the connecting flange portion.

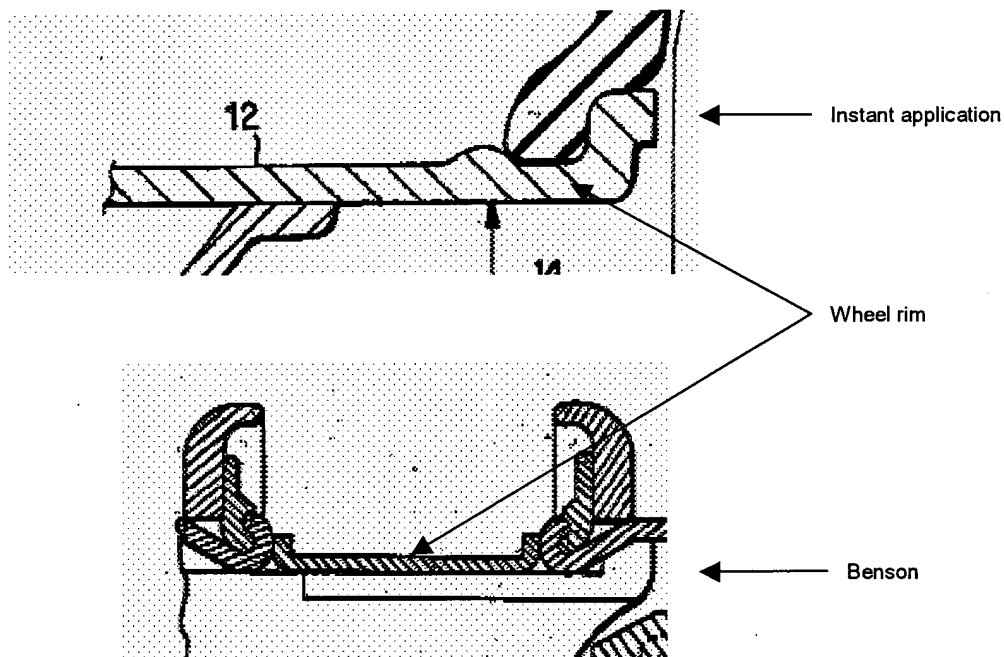
Re: claims 12, 15, 25 and 28. Benson shows in figure 1 the limitation of wherein a plurality of cooling fins 35 are disposed about (to the right of) an inner radius of the friction portion.

Response to Arguments

6. Applicant's arguments filed 2/8/06 have been fully considered but they are not persuasive. Applicant argues that "there is no question that Benson's flange 13 extends to a radially outer portion of friction ring 19, and thus does not disclose or suggest the invention in claims 1 and 16." Examiner notes that the portion of the flange 13 in the area of the lead line of number 13 extends from a radially outer region of the hub portion 7 to a radially inner region of the friction portion 19 in the same manner in which one would extend their arms up to the ceiling. A person extends their arms to the ceiling but does not necessarily touch the ceiling. There is nothing in the claim language that precludes such an interpretation. The claim language does not recite an extension that ends in a direct connection. Accordingly, Examiner maintains that, as broadly recited,

the portion of the flange 13 in the area of the lead line of 13 extends to a radially inner region of the friction portion 19.

Also, with regards to the wheel rim, just as Applicant's wheel rim includes a flat piece with crimped edges, Examiner has interpreted the wheel rim of Benson to be the flat piece with crimped edges as labeled below:



Accordingly, the rejections have been maintained.

7. Applicant's arguments, see pg. 12, filed 2/8/06, with respect to 10/803050 in view of Benson have been fully considered and are persuasive. The double patenting rejections of claims 1 and 16 has been withdrawn. Examiner notes that the copending application includes claim language focusing on the axial and not the radial arrangement of the components.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on 571-272-6786. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mmb
April 19, 2006

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683

4/19/06